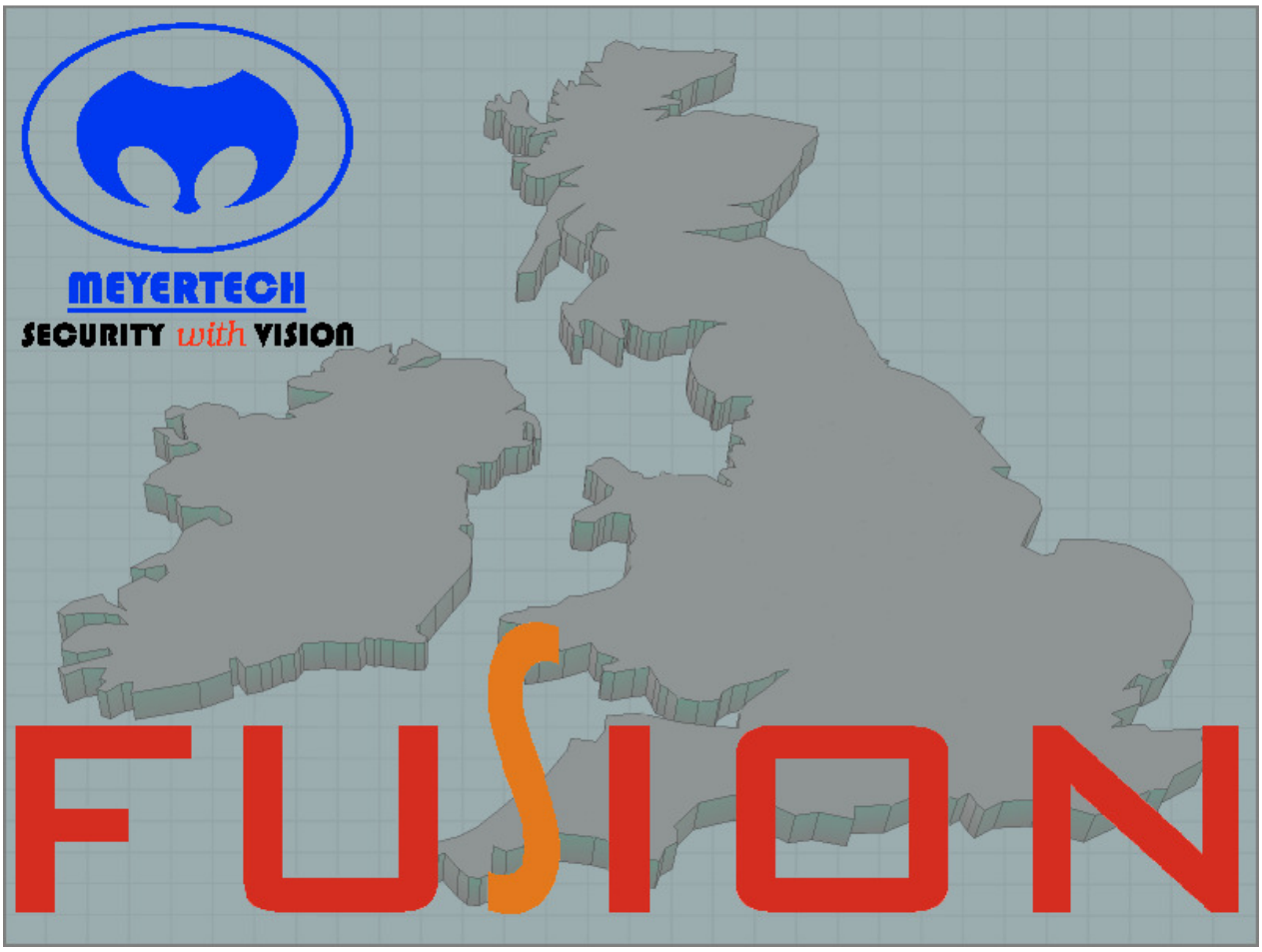
MEYERTECH
SECURITY with VISION

FUSION

USER GUIDE



FUSION

CCTV System Management Software

Issue 14

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Introduction

Thank you for purchasing Meyertech's FUSION software. Please read this user guide prior to using the software. It will help you to achieve the maximum benefit from the software package.

What is FUSION?

FUSION is a software application developed by Meyertech to manage ZoneVu CCTV systems more efficiently and effectively.

Being a Windows application FUSION takes advantage of both the high resolution graphics available and the familiarity of the Windows environment.

The FUSION user interface is graphical, and it is often referred to as a GUI (Graphical User Interface) making it easy to use and intuitive to learn. For the majority of operations only the mouse (or Touchscreen if you FUSION Workstation is fitted with one) is required to Navigate, operate and control all aspects of your CCTV system.

KEY FEATURES

- AS IT'S NAME SUGGESTS FUSION *'FUSES'* TOGETHER THE VARIOUS ELEMENTS OF A CCTV SYSTEM PROVIDING UNPARALLELED LEVELS OF INTEGRATION
- FUSION HAS BEEN DEVELOPED AS A SUITE OFAPPLICATIONS, WHICH CAN BE PURCHASED SEPERATLY TO MEET YOUR REQUIREMENTS AND BUDGET
- FUSION PROVIDES THE FLEXIBILITY TO MANAGE YOUR SYSTEM MORE EFFECTIVELY BOTH LOCALLY AND INTERSITE
- TRUE MULTI-SITE MANAGEMENT FROM A WINDOWS GUI PLATFORM
- FUSION DOES NOT REQUIRE A SERVER AND CLIENT NETWORK.
- UNIQUE PASTEL MAPS REDUCE OPERATOR FATIGUE

The features described in this manual refer to :

Version 1.27.0.0 of the Fusion Application

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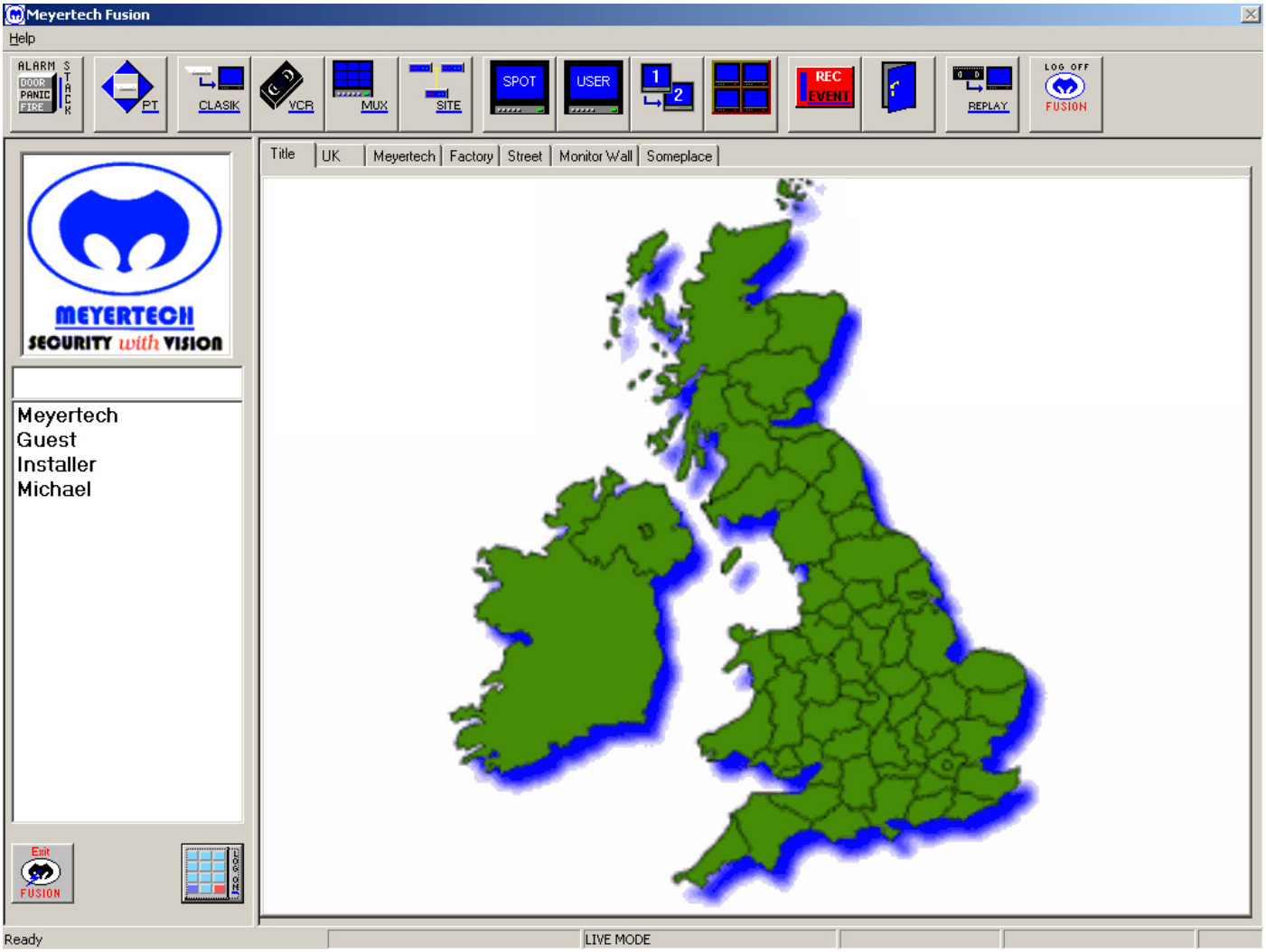
FUSION OVERVIEW

Logged Off Screen

The **Logged Off** screen (shown below) or 'Title Screen' as it is sometimes referred to is the quiescent, logged-off state for FUSION.
It is the initial screen displayed when FUSION is started from Windows and it is also the screen from which to quit the FUSION application.

The FUSION screen is split into three main areas, **Toolbar, Control Panel** and **Map Area** all of which we will now explore. In the logged off state the Control Panel always shows the operator log-on list, and in the Map area the FUSION Splash Screen is always shown.



Toolbar Buttons

The **Toolbar** across the top of the screen is used to select which type of controls are displayed in the Control Panel E.G. selecting the VCR button will display VCR controls in the Control Panel.

Exceptions to this are the monitor buttons, which are used to select images onto your workstation monitor(s), select images onto the monitor wall and copy images to remote monitors EG RELAY monitor.

Toolbar buttons only function once you have logged onto FUSION.

Control Panel

The Control Panel functions in conjunction with the aforementioned Toolbar Buttons. The Control Panel will display controls associated with the current FUSION tool selected from the Toolbar E.G. if the current Tool selected is say Camera Control the Control Panel will display a series of control buttons with which to control the movement of cameras and domes as shown here on the right.

Did You Know !

If your FUSION WORKSTATION is fitted with a Touchscreen –
To select a function simply press the button on the screen once. This is equivalent to a double click operation in Windows. All FUSION operations are press to select.
If you are using a mouse to operate the FUSION WORKSTATION-
Functions are selected by simply left click once. This is equivalent to a double click operation in Windows. All FUSION operations are single click.

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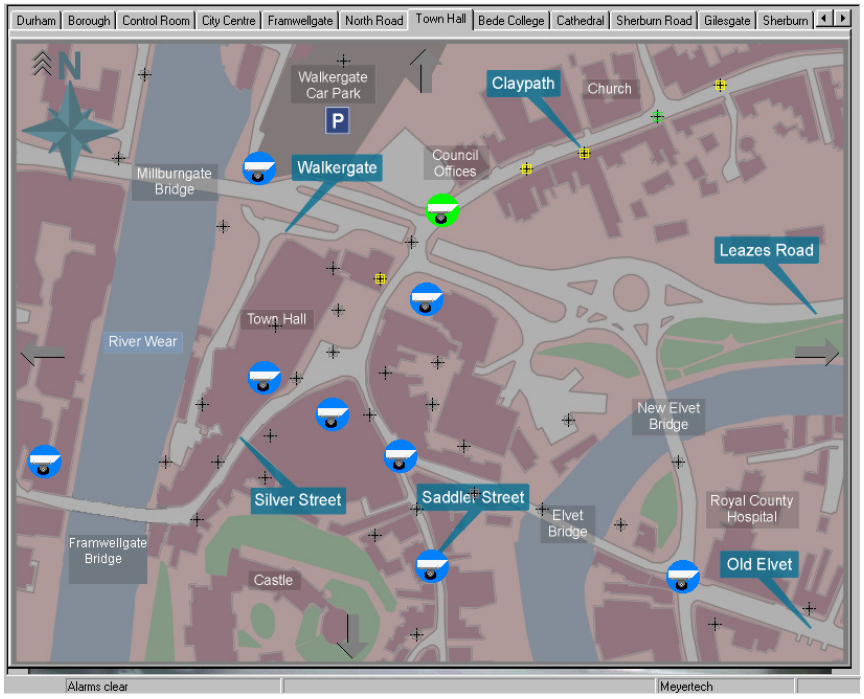
Map Area



The Map Area provides intuitive selection of system camera images for display on our patrol monitor. The structure of the maps is hierarchal by nature resulting in 'drill-down' operation from the top map EG the County map. This approach to the selection of system cameras provides seamless navigation, even for multi-site systems.

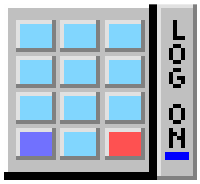
As well as displaying maps, assuming you have the 'inset video' option fitted, it is the area where live camera images can be displayed on the FUSION WORKSTATION. This facility is equivalent to selecting images to your patrol monitors and is managed by FUSION in the same way.

Log-on and Log-off Procedure

Log-on Procedure

Select your User Name from the User Log-on list shown on the left. If your name is not currently visible scroll up or down the list until you find it using the slider bar on the right of the list.

Now press the Log-on button (shown right).



FUSION

The on-screen keyboard will then pop-up.

Enter your Password or PIN and press ENTER. You can either press the buttons on the screen (via mouse / touchscreen) or type on your keyboard

If you enter an incorrect PIN or Password you will be returned to the logged-off screen.

When you successfully log-on the Control Panel changes to display Clasik functions and the Map Area displays the Top Map.

Log-off Procedure

A User can log-off FUSION from anywhere within the application I.E. you do not have to return to the top map prior to logging-off, simply press the LOG-OFF button (located on the right side of the toolbar, shown below) which will return you to the logged-off screen and user log-on list, ready for the next user.

Map Navigation

Once logged-on to FUSION the 'top map' of the system will become active. This map will normally show the overall area covered by FUSION. The map structure of FUSION is 'tree' like in nature, which means from the top map you can 'branch' to more detailed maps. FUSION maps can be navigated a number of ways.

Navigation by Defined Areas of the Map

- By mouse, point the mouse at a defined area of the map (indicated by a highlight or grid), and left click to display a more detailed view of that area.
- By touch (this is only available if your FUSION workstation is equipped with a touchscreen), simply touch the defined areas of the map with your finger to display a more detailed view of that area.

Navigation by Map Tabs

Any map area can be viewed directly using the map Navigation Tabs located along the top of the map. To directly display the map you require simply select the named map tab. This feature can cut out a number of map levels by allowing you to go

directly to any system map. If your system has a large quantity of maps use the scroll buttons (located toward the right of the map tabs) to display all the maps on your FUSION workstation.

Note! – Map tab operation may not be suitable for touchscreen operation.

Did You Know !

If your FUSION WORKSTATION is fitted with a Touchscreen you can still use your mouse to control FUSION

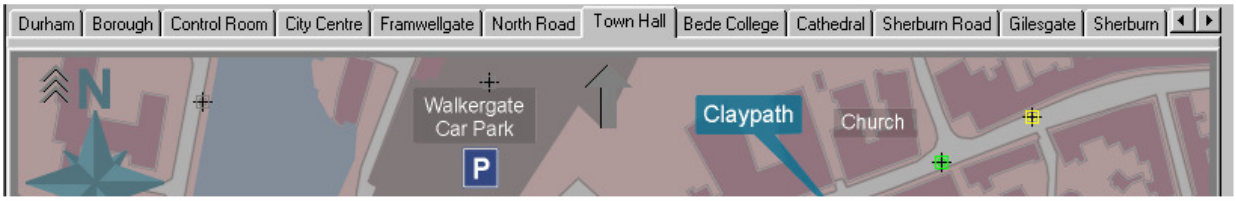
Navigation by Arrows and Chevrons

You will have probably noticed Arrows and Chevrons on the maps. They allow you to navigate between maps.

Chevron

Pressing the Chevron will returns you to the map layer above the one you are currently viewing IE a less detailed map.

The Chevron can be clearly seen on the top left hand side of the map segment shown below.



Direction Arrow

If you see a map with this type of arrow it is indicating there is another map with the same level of detail locate to the right of the one you are currently viewing. You may also come across similar arrows pointing Up, Down and Left which mean there adjacent maps in the direction indicated.

Below we see an example of the direction arrow in use.

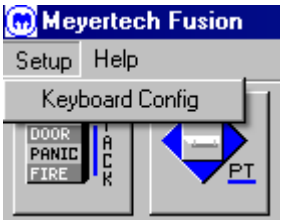
PCI Mode

PC Interactive mode or PCI mode is a mode of operation ZoneVu keyboards are operated in when used in conjunction with a FUSION workstation. In this mode of operation the ZoneVu keyboard and FUSION are synchronised with respect to camera/dome selection and control.

Normally you would have to first select the camera/dome you wish to view, and then you would have to reselect the camera/dome on the keyboard to control it. In PCI mode you only have to select the camera image on FUSION and move the keyboard joystick to realise full control of your camera or dome.

Keyboard Setup

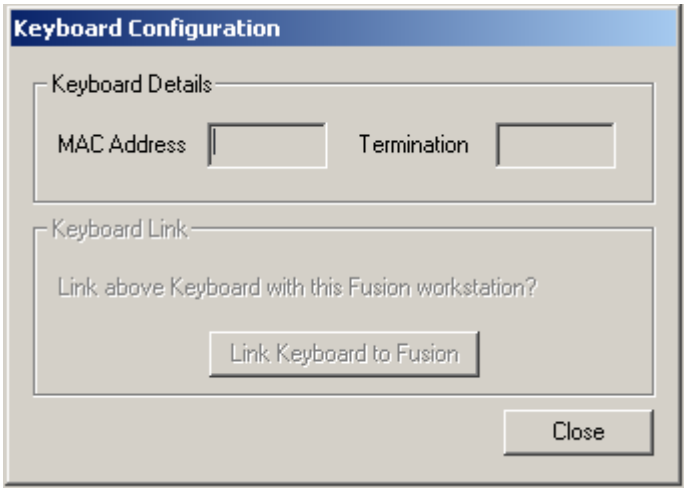
It is possible to link a ZVK-66 keyboard directly to the Fusion GUI. The operator must log on to Fusion at Manager or Engineer level then click on the Setup menu option, located at the top left of the screen, the operator must then select the keyboard config option.



This will open a new window that will display the currently configured MAC (machine access code) address of the linked keyboard.

Put the required ZVK-66 into configuration mode. For details about ZVK-66 configuration mode, please review the ZVK-66 manual.

If communication to the ZVK-66 is successful the display will update to show the current MAC address for the keyboard. If you are happy to overwrite this with the Fusion setting, press the “Link Keyboard to Fusion” button. If you do not wish to change anything, click on close.



- **Link Keyboard to Fusion**
  This will change the MAC of the keyboard to match the MAC currently used by the Fusion workstation,

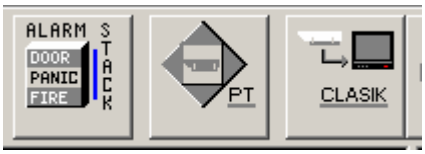
Note this configuration screen must be displayed before putting the keyboard into configuration mode.

FUSION

Main Toolbar

The Main Toolbar is used to select the current mode of operation. By selecting one of the Toolbar buttons the operation of Fusion will change.

Alarm Stack



Selecting this button will change the control panel to ALARM MODE. This mode is used primarily for handling alarm events.

PT

Selecting this button will change the control panel to CAMERA CONTROL MODE. This mode is used primarily for generating control telemetry.

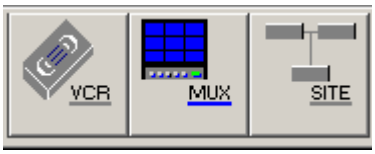
Clasik

Selecting this button will change the control panel to CLASIK MODE. This mode is used primarily for camera and monitor selection.

VCR

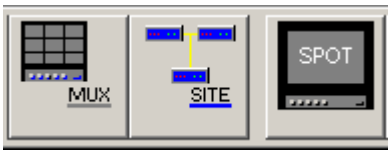
Selecting this button will change the control panel to VCR MODE. This mode is used primarily for VCR control.

MUX



Selecting this button will change the control panel to MUX MODE. This mode is used primarily for Multiplexer control, access to this control is limited by user level.

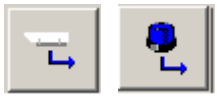
Site



Selecting this button will change the control panel to SITE MODE. This mode is used for site specific operations.

Did You Know !

Some Control Panels have secondary commands available by selecting one of the buttons



Using Monitor Buttons

Typically a CCTV workstation position would comprise a FUSION workstation, a ZoneVu keyboard incorporating a proportional joystick and operated in PCI mode, and either one or two monitors, referred to as SPOT monitor and USER monitor. An alternative to using external monitors is to use the INSET video facility, which can be specified on all FUSION workstation systems as an option.

To use the SPOT monitor press or click on it once. Once selected it becomes your current **active** monitor and all CCTV images you select from now on will appear on your SPOT monitor.

You will notice that as you select images the actual camera number (relative to the site you are on) you have selected is displayed under the SPOT monitor.

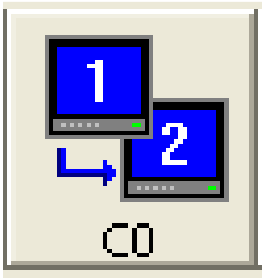
Notice also that when you select another monitor EG your USER monitor (if you have one) or a monitor from the MONITOR WALL not only does that become your **active** monitor, with every image you select from now on displayed on it, the camera currently displayed on that monitor is now highlighted on the map and if the camera is on a different map then the map will also change to display the location of the camera.

To use the USER monitor press or click on it once. Once selected it becomes your current **active** monitor and all CCTV images you select from now on will appear on your USER monitor.

You will notice that as you select images the actual camera number (relative to the site you are on) you have selected is displayed under the USER monitor.

Notice also that when you select another monitor EG your SPOT monitor or a monitor from the MONITOR WALL not only does that become your **active** monitor, with every image you select from now on displayed on it, the camera currently displayed on that monitor is now highlighted on the map and if the camera is on a different map then the map will also change to display the location of the camera.

The Relay Monitor



The RELAY monitor is a special monitor not normally associated with a workstation position. In fact it is often located at a remote location EG police station, although it can also be configured as part of the monitor wall.

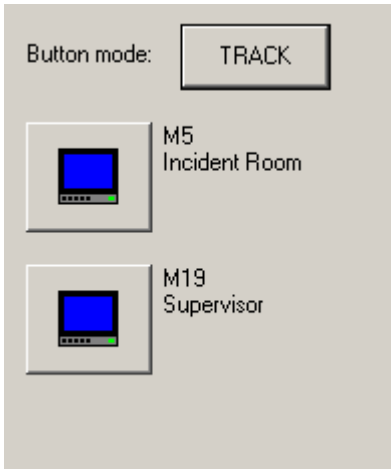
The special functionality this monitor has relates to the control the workstation operator has over what is displayed on it. Pressing the RELAY monitor button will *copy* the image currently displayed on your **active** monitor to the RELAY monitor.

Further images then selected onto your SPOT will not be displayed on the RELAY monitor until you again click the RELAY monitor button, at which point the RELAY monitor will be updated with the image displayed on your SPOT monitor.

The RELAY monitor button can be configured in FusionEdit to display a control panel consisting of up to eight programmable monitor control buttons. Next to each button is the number of the monitor it controls and a descriptive monitor name.

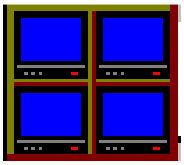
The “Button mode” button allows the operation mode of the monitor control buttons to be chosen. Each time it is clicked it switches all the monitor buttons into one of the following modes:

SELECT	The buttons select their associated monitors in the same way as the SPOT and USER monitor buttons described above.
COPY	The buttons copy the image currently displayed on the active monitor to the one associated with the button. This is the same as the original operation of the RELAY monitor button described above.
TRACK	As COPY mode above, but any camera changes made on the original monitor cause the new image to be copied to the one associated with the button.



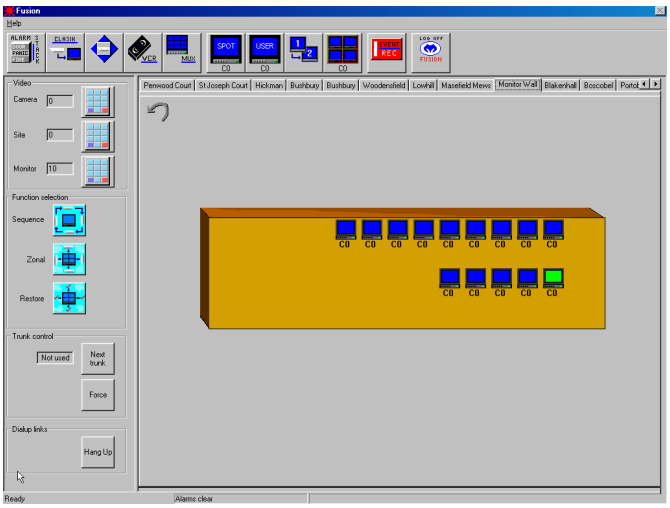
Using the Monitor Wall

In a medium to large CCTV system it is common for the Control Room to employ a MONITOR WALL. A monitor wall is a bank of monitors which all FUSION workstations have access to. To select a working monitor from the monitor wall click the MONITOR WALL button (shown below) located on the toolbar.



The MONITOR WALL shown right will appear in the map area.

To select a working monitor click on it.



The monitor selected will turn green and the map area will return to the map displayed prior to selecting the MONITOR WALL.

All future camera selections will now display the image on the MONITOR WALL monitor you have selected. This is now your working monitor until you either select another monitor from the MONITOR WALL or select your SPOT or USER monitors.

Did You Know !

*Any monitor can become your **ACTIVE** monitor. Once selected all operations take place on that monitor.*

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Using the Digital Display Wall

The digital display wall allows a dynamic method of utilizing monitor resources. If the digital display wall is enabled (see FusionEdit manual) then the user need only select the monitor wall button that is located on the toolbar.

When you have selected the monitor wall button the digital display control panel shown left will be displayed. At the top of the panel is a single keypad which is used to select the digital display wall to control.

WALL KEYPAD – click on the wall keypad to select a digital display wall numerically using the virtual keypad. The switch will only occur if the display wall is enabled.

Below the wall keypad is a representation of the current display wall layout. Each of these buttons represents a virtual monitor on the display wall. Clicking one of the buttons will select that particular monitor and any camera switches made on this workstation following the monitor selection will be displayed on the selected monitor.

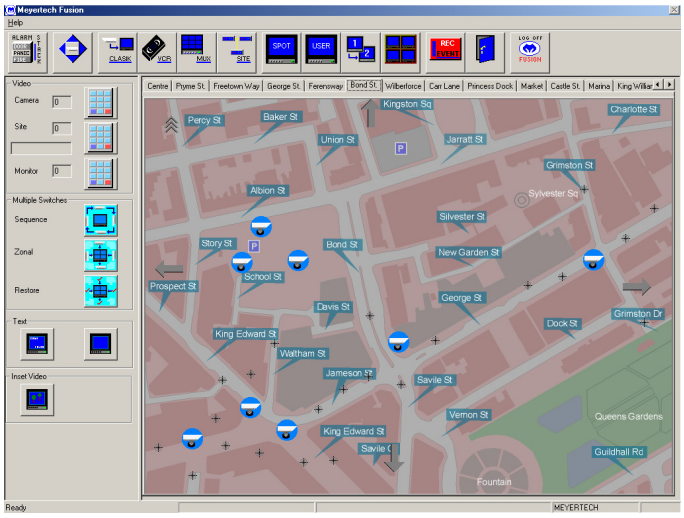
Each wall has a series of pre-defined layouts that can be switched between by using the arrow buttons that are visible below the monitor buttons.

The “Switch to Spot Wall” button when pressed will revert the user back to the default display wall that is configured for the current workstation.

Selecting Camera Images

Camera images can be selected onto monitors in one of two ways, by the point and click method or by entering the system number of the camera. Point and click the most commonly used method allows the operator to navigate the maps and then select the desired camera icon by geographical location. The second method using the CLASIK control mode, uses numerical entry requires knowledge of the camera locations in relation to their numerical position in the system. Both methods will now be explored in more detail.

Icon Selection of Cameras



To the right we see a typical FUSION map on which can be clearly seen eight camera icons. The camera icons are in their quiescent state, (we know this because of their blue background) which means they are currently not displayed on your SPOT or USER monitors.

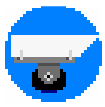
You will come across different type of camera icons when using FUSION which have been designed to represent the many types of cameras available on the market today. Here are a selection of some of the types you may Encounter. A more detailed list can be found in the FUSION Icon Guide at the back of this manual.

The icon to the left is for a Fixed camera. This camera cannot be controlled. Blue background status indicates it is not currently displayed on your **active** monitor.

The icon to the left is for a Fixed camera. This camera cannot be controlled. Green background status indicates it is currently displayed on your **active** monitor.

The icon to the left is for a Dome camera. This dome can be controlled. Green background status indicates it is currently displayed on your **active** monitor.

The icon to the right is for a PTZ camera. This camera can be controlled. Blue background status indicates it is not currently displayed on **active** monitor.



The icon to the left is for a Dome camera. This dome can be controlled. Blue background status indicates it is not currently displayed on your **active** monitor.

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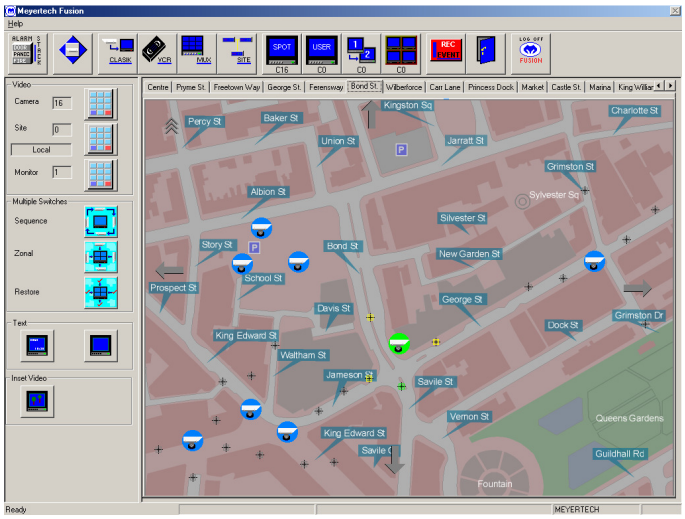


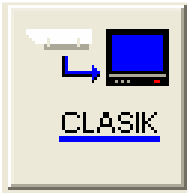
To select a camera image onto your current working monitor IE SPOT or USER simply click (or press if your FUSION workstation is equipped with a touchscreen) the camera icon you wish to view.

When you click the icon it's background will turn from blue to green to indicate it is currently displayed on your working monitor. You may also hear a sound as you click or press as a means of tactile feedback.

In the control panel area, assuming you have CLASIK selected from the FUSION toolbar along the top, you will see the numerical representations of your actions from a system point of view. IE the Camera number, Site number and Monitor number may all be updated.

Clasik Control Mode

As previously mentioned cameras can be entered numerically using the virtual keypad but numerical entry requires knowledge of the camera locations in relation to their numerical position in the system. To use this method of entry first select CLASIK by pressing the CLASIK key shown below.

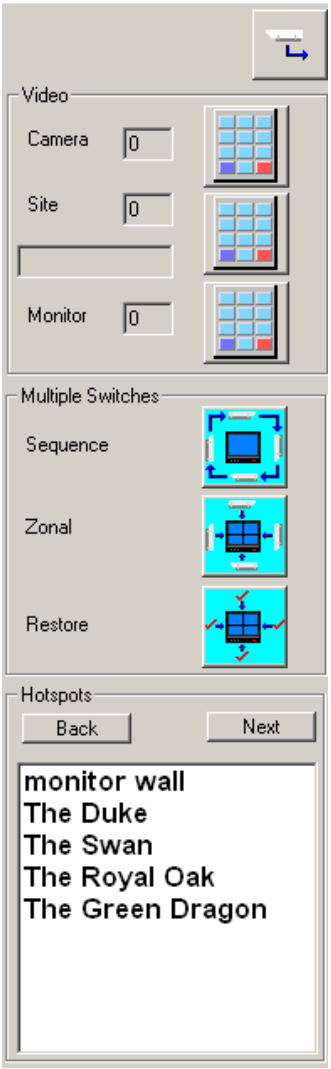


When you have selected CLASIK the control panel shown right will be displayed. At the top of the panel are three keypads which are used to select camera images, the Camera keypad, Site keypad and Monitor keypad.

CAMERA KEYPAD – click on the camera keypad to select a camera image numerically using the virtual keypad. The switch will only occur if the camera exists.

SITE KEYPAD – click on the site keypad to select a camera image numerically using the virtual keypad. The name of the site will also be displayed in the adjacent box.

MONITOR KEYPAD – click on the monitor keypad to select a camera image numerically using the virtual keypad



Below is an example of the virtual keypad.

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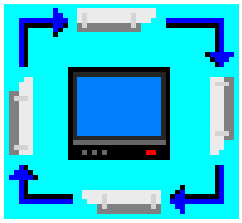
Sequence Button

A SEQUENCE is a number of pre-configured camera images (referred to as a *Pattern*) displayed sequentially on your **active** monitor. To run a pattern click the SEQUENCE button shown below left.



The virtual keypad will then appear.
Enter a pattern number and click enter.

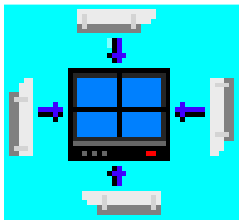
The sequence will continue to run until you select a camera image to the monitor running the sequence.

Once a sequence is running you are free to select and use other monitors such as the USER monitor and MONITOR WALL.

Zonal Button

A ZONAL Switch is a number of pre-configured camera to monitor switches that can be executed with a minimum of key presses.

In a ZONAL switch up to eight MONITOR WALL monitors are used to display the same number of camera images simultaneously.
A ZONAL switch is pre-configured with respect to which monitors are to participate in the ZONAL switch and which camera images are to be displayed on the ZONAL switch monitors. Click on the ZONAL button shown below left



The virtual keypad will then appear.
Enter a ZONAL switch number and click enter.

The ZONAL Switch will be immediately executed across the range of configured monitors

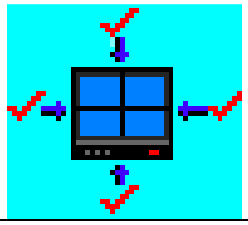
Once the ZONAL Switch is complete you are free to perform any action.

The Zonal feature is also associated with a map icon , this icon is configured to run a specific Zonal switch on selection. This feature is particularly useful when operating across a range of remote sites.

Each icon, placed on each area map, can be configured for a number of cameras. When the area map is selected, the operator can quickly press the Zonal Switch icon and the set of local cameras will immediately be displayed on the monitor wall.

Restore Button

The RESTORE button is used to reconfigure the monitor wall back to a known state. Following an incident restore the MONITOR WALL to its default state by simply clicking the RESTORE button. This button effectively initiates the command ZONAL Switch number 0. Click on the RESTORE button shown below left.



The ZONAL Switch (0) will be immediately executed across the range of configured monitors

Once the ZONAL Switch is complete you are free to perform any action.

Hotspots

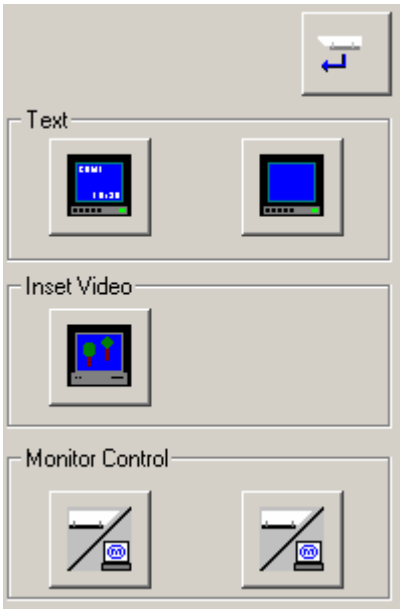
Hotspots are areas on the map where multiple cameras can be made to look simultaneously. These are often areas such as outside public houses, shops or ATMs.

By selecting a hotspot a series of camera preset commands are generated, allowing a configurable number of cameras to look at a specific area.

By using the BACK and NEXT buttons the camera view can be switched between all the cameras that can view the Hotspot, giving the operator a simple and quick method of surveying the area of a likely incident.

The Hotspots can be selected from either the list of Hotspot names or directly from the map wherever the Hotspot icon is placed.

Clasik Control Mode – Secondary



On selecting the Clasik Control secondary functions the control panel changes to that shown on the left.

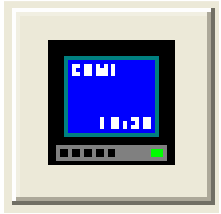
These functions are those that are considered not needed to be accessed quickly, so are available as secondary operations.

Text

In a CCTV system you will normally see text displayed on your SPOT and USER monitors as well as on monitors in the MONITOR WALL. This text usually contains useful system information such as the identity of the camera image being displayed along with the time and date.

Under normal conditions the text is normally unobtrusive but under extreme conditions it may become so. The TEXT buttons allow the operator to switch off and on the text on the current working monitor.

Note! This facility is a CCTV system function and its availability is dependant on the type of the video matrix installed in your system.



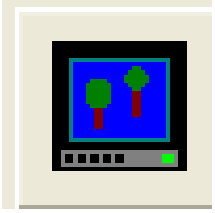
FUSION

Monitor Control

Where the installation supports it, these buttons will switch the Fusion display onto the monitor wall.

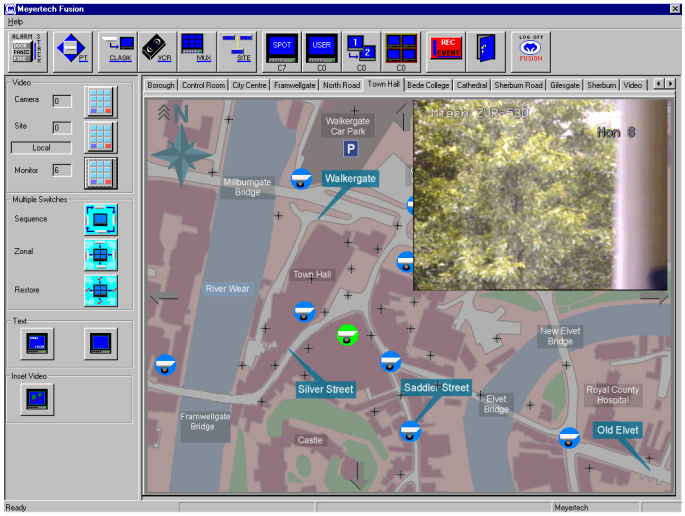
Inset Spot Monitor

External monitors whilst providing a higher resolution, can occupy valuable desktop 'real-estate'. As an alternative FUSION workstations can be specified with the optional INSET video facility, which provides a virtual SPOT, monitor. This facility, when configured as a SPOT monitor, utilises the map area to display live video images as either a quarter image window overlaid on the map or as a full sized image occupying the full map area.



To display the INSET image either click on the INSET button (seen on the right) or select it via the map tab.

To display the live video image in a particular quadrant click the corner of the live video image you want the quadrant to appear. Clicking the centre of the inset video will display the image at full map size. Below we can see an example of the inset video (shown in the top right-hand side of the map area)

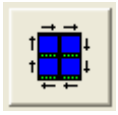


Zonal Sequencing

A ZONAL Sequence is a number of pre-configured camera to monitor switches that can be executed with the pressing of a single button. In a ZONAL Sequence up to eight MONITOR WALL monitors are used to display the same number of camera images simultaneously.

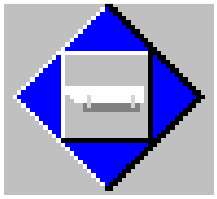
In a ZONAL Sequence up to eighty ZONAL switches can be used. Each of these ZONAL switches in the sequence is pre-configured with respect to which monitors are to participate and which camera images are to be displayed on which monitors. The time that the cameras dwell on each particular switch in the sequence is also configurable.

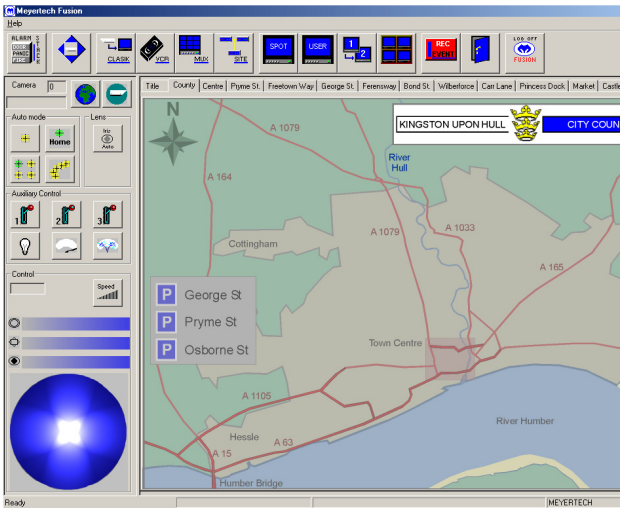
To execute a pre-configured ZONAL sequence click on the ZONAL sequence button shown here.



Controlling PTZ Cameras and Domes

A big part of CCTV systems are cameras and domes, which have the ability to be controlled. FUSION workstations incorporate a plethora of control functions all at the fingertips of the operator providing enhanced levels of control for the latest camera and dome technology.





To access camera control functions click on the CAMERA CONTROL button (shown above) on the FUSION toolbar

Hierarchal Priority System

FUSION workstations operate what we call a *Hierarchal Priority System* camera control operations. This ensures that two FUSION workstations cannot operate the same camera or dome at the same time. Workstation priority is assigned on a hierarchal basis meaning that the workstation with the highest priority will always gain control of a particular camera or dome. Workstation priorities are assigned as part of the configuration process of the system.

When two FUSION workstations have the same camera control priority, control of a particular camera or dome reverts to a *first come, first served basis*.

To take control of a camera or dome currently selected on your working monitor simply initiate a camera control command such as Panning the camera.

If control is granted the camera will begin to move and the yellow P&T symbol will be overlaid onto the camera under control as shown right.

Alternatively if you want to take control without initiating a camera control command click the CAMERA CONTROL button (shown above) on the FUSION toolbar.

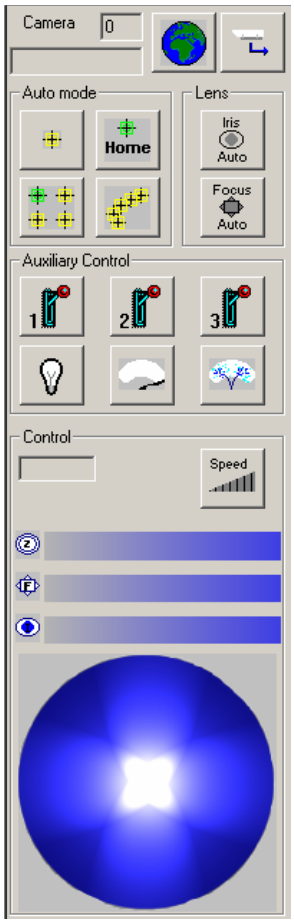
If control is denied a dark green P&T symbol will be overlaid (see below) onto the camera currently selected indicating a FUSION workstation with a higher priority currently has control of the camera. You will not be able to initiate any camera control commands until the workstation with the higher priority relinquishes control.

To relinquish control of a camera or dome voluntarily simply click on the CAMERA CONTROL button. The P&T symbol will disappear.

Control is also relinquished automatically whenever you select a new camera image.

FUSION

Pan & Tilt Operation



The CAMERA CONTROL panel, shown right, is used to control domes and PTZ cameras in the CCTV system.

The CAMERA CONTROL panel comprises the following operator controls:

Virtual Joystick

The VIRTUAL JOYSTICK is the large blue circle located in the bottom of the panel. It can be controlled by mouse or with your finger if you have touchscreen version of FUSION and operates the pan and tilt functions of the camera or dome.

To operate the VIRTUAL JOYSTICK click anywhere in the circle and holding the left mouse button down move the line pointer, emanating from the centre of the joystick, in the direction you wish the camera or dome to move.

The VIRTUAL JOYSTICK incorporates proportional speed control. The lowest speed is located at the centre o f the joystick. Moving the pointer towards the edge of the circle will increase the speed at which the camera or dome moves in the direction indicated.

Note! – Not all domes and cameras are equipped with variable speed capability. If the camera or dome you are controlling is not equipped with variable speed it will move at a fixed speed irrespective of where you position the pointer.

Lens Operation

The three slide bars located just above the VIRTUAL JOYSTICK operate the lens functions of a camera or dome. The top slide bar operates the ZOOM function, the middle slide bar operates the FOCUS function and the bottom slide bar operates the IRIS function. All three of the slide bars operate in a similar manner and provide proportional speed control dependant on the camera or dome they are controlling.

To operate any LENS function click on the function you wish to control in the centre of the bar, and holding the left mouse button down move the horizontal marker up or down the slider bar.

Note! – The IRIS slider bar will only function when you have IRIS MANUAL selected.

Iris Auto / Manual

The IRIS AUTO / MANUAL button can be found in the top right of the CAMERA CONTROL panel under the heading LENS. When the camera or dome has AUTO IRIS selected the camera or dome manages the amount of light, which passes through the lens. However the operator can manually control the IRIS (if the camera or dome has this function) by first selecting the IRIS AUTO button and then adjusting the IRIS slider bar to increase or decrease the amount of light passing through the lens.

Focus Auto / Manual

The FOCUS AUTO / MANUAL button can be found in the top right of the CAMERA CONTROL panel under the heading LENS. When the camera or dome has AUTO FOCUS selected the camera or dome attempts to auto-focus the lens of the object in display. However the operator can manually control the FOCUS (if the camera or dome has this function) by adjusting the FOCUS slider bar.

Low Speed Control

The SPEED button located above the LENS slider bars acts like a gearshift, providing low speed drive mode of operation. This is especially useful for cameras with long focal lenses, which tend to be different to control when zooming in on distant objects. To operate this feature click or press once. To return too normal speed control click or press a second time.

Note! – Not all cameras and domes may support this feature.

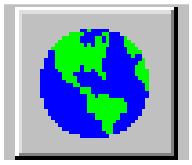
Auxiliary Control Functions

Located just above the LENS and VITUAL JOYSTICK functions, the AUXILLARY CONTROL FUNCTIONS are grouped in two rows of three buttons. The top row provides control of camera auxiliary functions, which are not usually committed to any particular task EG the control of a traffic barrier. The bottom row of functions does have a specific task and are labelled from left to right:

- LAMPS – used to switch Infrared or other lighting on and off. Click once to switch this function on and click a second time to switch this function off.
- WIPER – used to switch the camera wiper on and off. Click once to switch this function on and click a second time to switch this function off. Normally domes are not fitted with a wiper.
- WASH – used to wash the screen of the camera housing. Click and hold down to action this command.

Global Function

The GLOBAL button shown right is a shortcut key to save time. When selected it allows a command to be applied to all system cameras/domes in the system EG GLOBAL – WIPER ON.



To select a GLOBAL command click or press the GLOBAL button then select one of following camera functions which apply to the global function:

PRESET HOME WIPER AUTO-IRIS LAMP AUXILLARY

Auto Modes

Auto mode refers to cameras and domes, which have the ability to automatically perform automated functions under the control of FUSION, such as PRESETS and PATROLS.

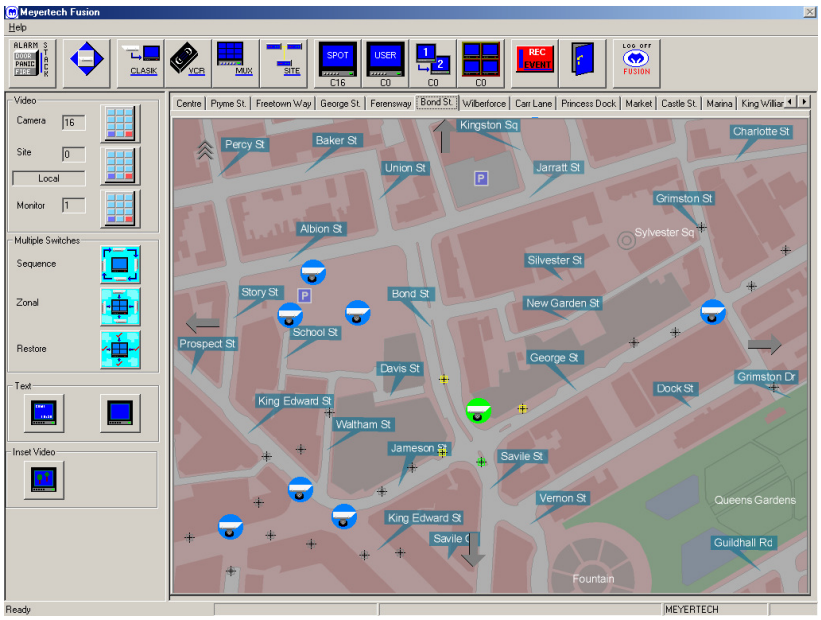
Presets

A PRESET is an image a camera or dome can automatically acquire in its field of view under the instruction of FUSION.

The icon shown here on the right represents a PRESET associated with a camera which is not currently not selected IE the icon is said to be in its quiescent state.

When a camera is selected all PRESETS associated with that camera are highlighted in yellow as this icon shows.

The green PRESET icon is a special preset known as the camera or dome HOME position. A camera or dome only has one HOME position.



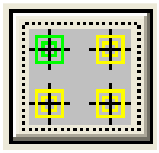
A PRESET can be selected in one of two ways. The first method is to first select the camera you wish to view, all camera/dome presets associated with it will then be highlighted. Next click on the PREST you wish the camera/dome to go to.

An alternative method is to simply select a PRESET directly. This method negates the need to select a camera first. FUSION will do the rest, switching the camera associated with the preset selected to your working monitor and instructing the camera/dome to go to the preset.

To the left we can see both quiescent and active preset positions including the HOME position.

Note! – not all cameras and domes are capable of preset operation.

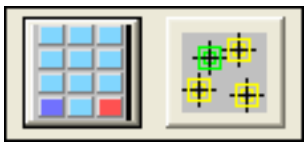
FUSION supports three types of PATROLS Ordered, Random and Mimic. With the exception of Mimic, a patrol consists of a number of PRESETS which the camera or dome visits, dwelling at each one for a period of time.



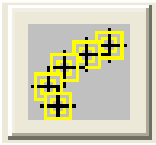
Ordered / Random Patrol Button

Clicking this button activates the fly-out panel shown on the right containing the individual Ordered and Random Patrol Buttons.

Note that the random patrol is now selected by clicking its own button rather than, as in previous versions of FUSION, selecting the special patrol number 1. This also allows the ordered patrol numbers to now start from 0 instead of 2.



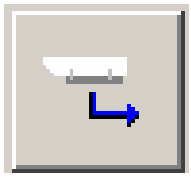
The Mimic PATROL is a special kind of patrol, which does not use presets. The Mimic patrol plays back previously recorded camera movements giving the impression that the operator is actually controlling the camera or dome.

Mimic Patrol Button 

It should be noted that PATROL capability is a function of the camera or dome and FUSION instructs the camera/dome to execute the PATROL. Not all cameras/domes support patrols.

- ORDERED PATROL – Select the PATROL button and then the KEYPAD button from the fly-out panel. Enter the required patrol number using the keypad dialog. In an ORDERED patrol the camera/dome visits presets in a pre-programmed manner, hence the name ordered.
- RANDOM PATROL – Select the PATROL button and then the RANDOM button from the fly-out panel. In a RANDOM patrol presets are visited randomly and the camera/dome dwells at each point for a random period of time.
- MIMIC PATROL – Select the MIMIC button and enter a mimic patrol number in the range 1 to 2. The MIMIC patrol will faithfully playback the pre-programmed sequence of camera movements.

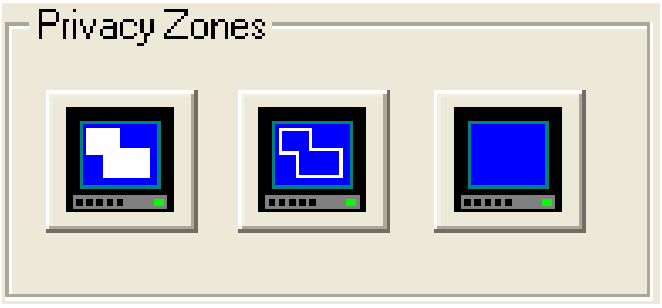
Camera modes – Secondary control panel



Selecting the SECONDARY CONTROL button displays a new set of functions in the CAMERA CONTROL panel. These are Privacy Zones, Timeout Override functions, User Commands and Receiver Alarm Status.

To go back to the main CAMERA CONTROL panel simply click or press the CAMERA MODE button again.

Privacy Zones



The PRIVACY ZONE panel contains three buttons associated with the privacy function.

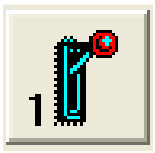
A PRIVACY ZONE is an area of the camera image which is 'blanked-out' by a pre-configured masked area. Privacy zones come into there own when PTZ cameras/domes overlook residential areas ensuring liberty rights are respected.

The three buttons allow the operator to set various levels of privacy to be exercised from Off through translucent to completely opaque.

Note! – not all cameras and domes support PRIVACY ZONES.

Timeout Override

The TIMEOUT OVERIDE feature ensures certain camera functions which may affect the performance of the system are not left switched on accidentally.



To ensure functions are not left switched on the functions are automatically switched off after a period of time by the ZoneVu control system.

FUSION allows the operator to OVERIDE this automatic timeout feature by selecting the OVERIDE button shown left.

The OVERIDE TIMEOUT feature applies to the control functions LAMP, MANUAL IRIS, Home, Wiper, Aux1 and Aux3

Receiver Alarm Status

At the bottom of the CONTROL PANEL is a sub-panel titled RECEIVER ALARM STATUS. This status panel is specific to ZoneVu telemetry receivers and displays the current alarm status of the current camera under control.

User Commands

This section is for user-configurable buttons. The buttons displayed in this section can be configured by FusionEdit for the following:

- Caption
- Function
- Optional keypad number entry

For example

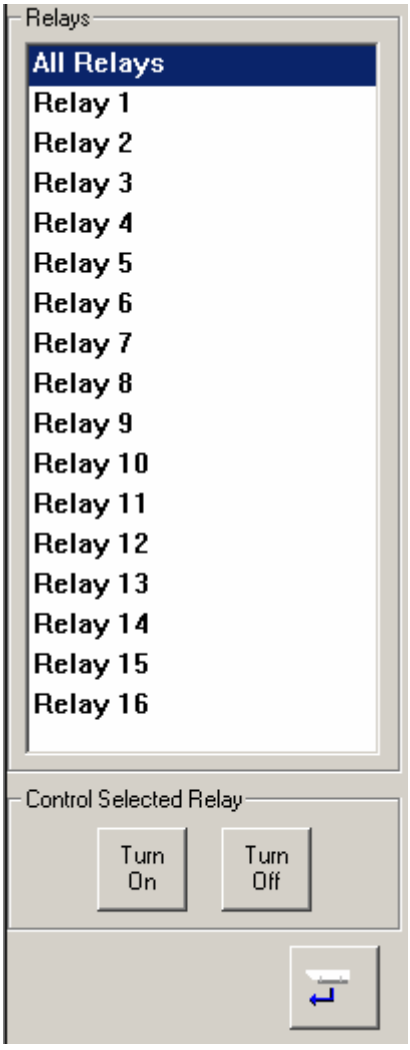
If a 3rd party dome had a pre-configured night / day mode of operation that was selectable via a Store Preset 97 command. Then a button can be set up with the text “Night / Day” and configured to generate the Store Preset 97 command.

The operator is therefore not required to remember details of obscure preset numbers.

For more information on this feature see the FusionEdit manual.

Relay Board

This section consists of a single button. Once the button is pressed the following relay board panel is displayed.



In conjunction with the ZVS-IOM8 it is possible to send relay messages from the Fusion front end.

To turn a relay on, select the specific relay in the list and press the button labelled “Turn On”.

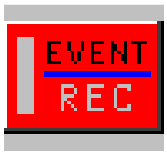
To turn a relay off, select the specific relay in the list and press the button labelled “Turn Off”.

Relays can be assigned meaningful names, to find out more about the configuration of relay names please see the FusionEdit manual.

DVR / VCR Control

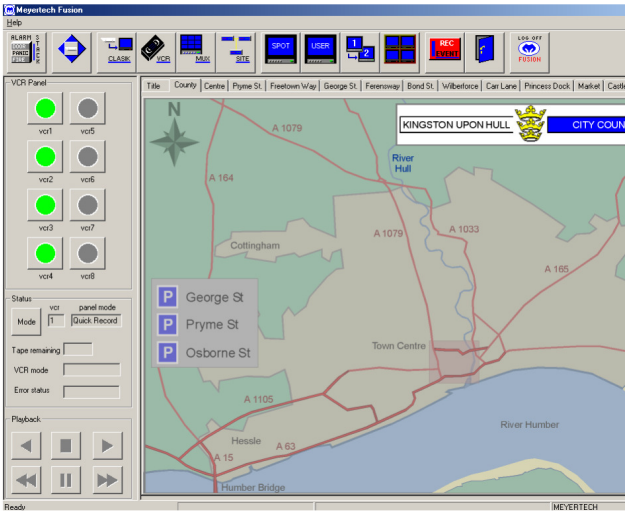
One of the main facets of the FUSION software is its ability to integrate CCTV peripheral devices such as VCR's and DVR's. With the correct ZoneVu interface it is possible to control up to eight DVR/VCR's from a FUSION workstation thereby relieving the desktop of another keyboard.

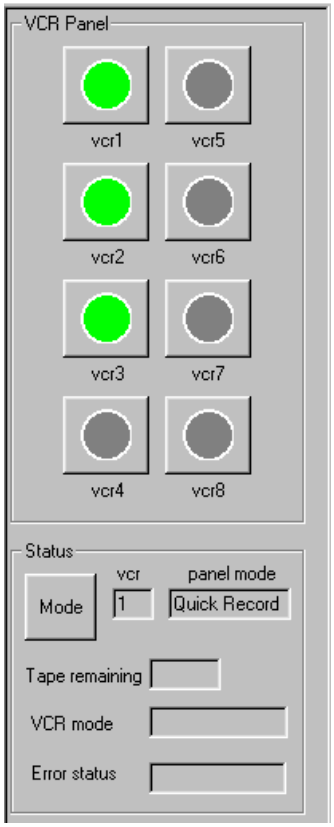
A typical CCTV system would incorporate what we call an Event VCR. This is a VCR used by a workstation to record in real-time incidents, which occur. A powerful feature provided by FUSION is the Instant Event Record facility. By pressing this button shown right and located on the main FUSION toolbar, event recording is started automatically and FUSION displays the VCR CONTROL panel.



VCR Panel

Below we can see the VCR CONTROL panel used to access the universal functions of any VCR.





The top half of the VCR panel shows the current status of all the VCR's on the system.

The green buttons indicate VCR's which are available for use. The greyed out buttons indicate no VCR present on the system. The text underneath the button can be set (via FusionEdit) to assist operator VCR identification.

Using the Mode button you can toggle between Quick Record and VCR Select.

Quick Record mode allows the operator to press any of the highlighted buttons and the image on his active monitor will be recorded on the selected video.

VCR select mode allows the operator to press any of the highlighted buttons and the current status of that VCR will be displayed.

Where supported by the VCR:

- Tape remaining displays the amount of recording time left.
- VCR mode displays the current status of the VCR selected.
- Error status displays faults such as end of tape alarm.

FUSION can be configured to work with external incident reporting applications such as FUSION Incident or i-Comply V-TAS. An incident report can either be started automatically when the FUSION Event Record button is pressed, or started manually by pressing the incident recording button shown on the left.

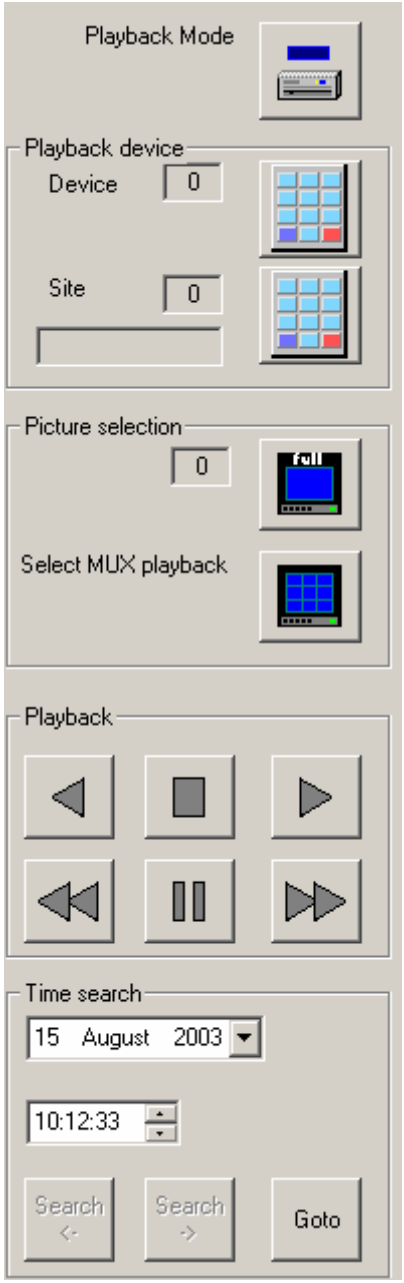
During the incident, each camera selection is entered into the incident report automatically, to serve as a basis for final report. This logging of camera selections ends when the VCR recording the incident is stopped.

The incident number displayed at the bottom of the panel allows the operator to locate the relevant incident report in the external incident reporting application once the incident is over.

Refer to the FUSION Edit User Guide for details of how to configure FUSION for this mode of operation.

Playback Control

The Playback panel brings together all the commands that an operator might require when reviewing recordings, either real-time, time lapse or digital.



To put Fusion into Playback mode, press the PLAYBACK button on the top right of the Playback Control Panel. This button will toggle between LIVE and PLAYBACK.

In PLAYBACK the taskbar (along the bottom of the screen) goes blue.

During PLAYBACK, camera and site selections made with Fusion will be directed to the playback device (where supported). This is particularly valuable when reviewing a DVR recording, the Fusion maps can be used to select recorded images, giving an interactive review of the recorded event.

Playback Device

From here select the device number that the playback is occurring on. Where a Control Room map has been set up, the operator can instead select the VCR/DVR using the map icon:

This will switch the DVR/VCR playback image onto the active monitor.

Note: By selecting a site number, a remote DVR/VCR can be controlled.

Picture Selection

From here a playback multiplexer can be controlled. Where a Control Room map has been set up, the operator can instead select the MUX using the map icon:

This will switch the current DVR/VCR playback image onto the playback MUX and switch the playback multiplexer output onto the active monitor.

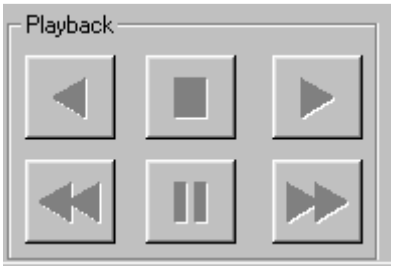
NOTE !

*For **Playback Mode** to work seamlessly your system configuration requires setting up within **FusionEdit** – see your **FusionEdit** manual for details*

FUSION

Playback

The Playback panel displays the common VCR / DVR control buttons Rewind, Stop, Fast Forward, Reverse Review, Pause and Forward Review.



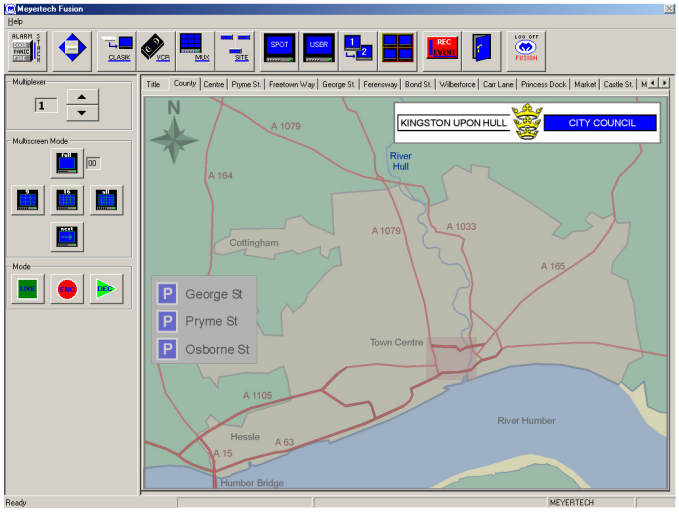
Time Search

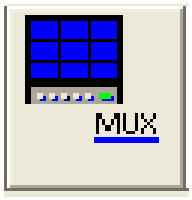
When reviewing images on a device that supports time and date searching, Fusion provides a simple interface for going to a specific time and date on the recording.

FUSION

Multiplexer Control

As well as integrating VCR's into the system FUSION can also provide control of system Multiplexers The MULTIPLEXER CONTROL panel is shown below



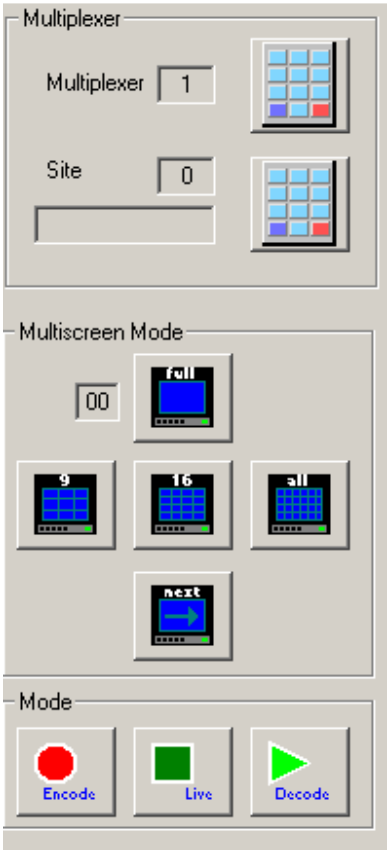


To display the MULTIPLEXER CONTROL panel click on the MUX button on the main FUSION toolbar.

The top half of the MULTIPLEXER CONTROL panel is used to select which Multiplexer we wish to control.
Note: remote multiplexers can be controlled when using site numbers.

The next panel below, Multiscreen Mode decides what format we want to display the Multiplexer output in. The options are FULL screen (when you select FULL screen a virtual keypad will appear requesting you enter a Multiplexer input number to display), 9-WAY split, 16-WAY split, ALL images displayed and a NEXT button used to cycle through all combinations of the Multiplexer output formats.

The bottom panel allows the operator to select the mode of operation of the Multiplexer. LIVE to display live images, ENCODE to start encoding images and DECODE to decode the multiplexed images.



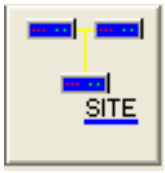
Site Selection and Trunk Management

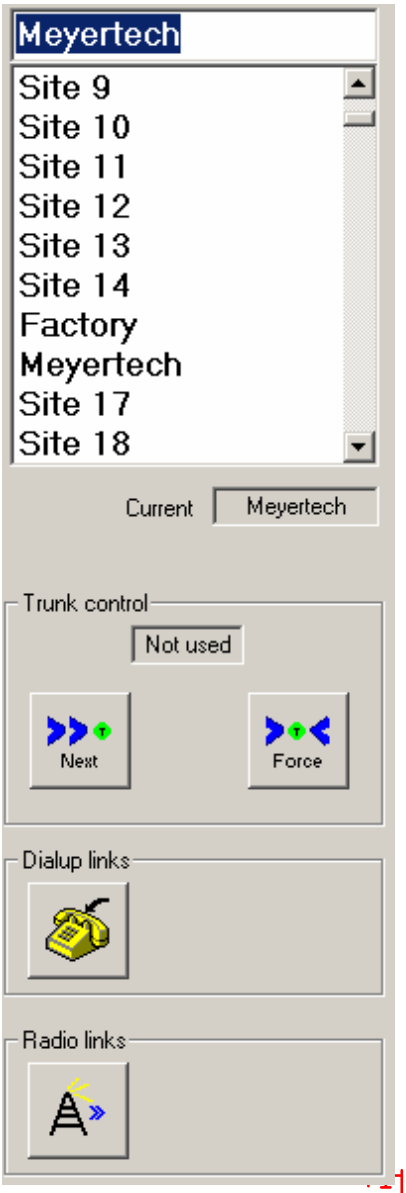
When FUSION is installed in conjunction with a ZoneVu system it is possible to integrate a number of disparate independent systems into a single multi-site system. In this type of system FUSION comes into its own by seamlessly integrating cameras across multiple sites into a single GUI based workstation.

In a typical multi-site system video trunks are used to provide video paths from one site to another. Operators are not normally aware that video trunks exist as when a camera is selected on a remote site via the icon method FUSION makes all the necessary video paths throughout the system.

But once you try to select video images from a remote site onto more monitors than there are video trunks you hit a problem. One of the video trunks is in danger of being overwritten. FUSION recognises this and provides control buttons to mange the video trunks.

To select the INTER-SITE CONTROL panel click or press the SITE button on the main FUSION toolbar.





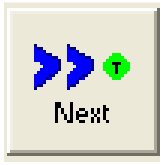
Site List

The Site list gives a scrollable list of site names. On selecting the required site, Fusion searches through all the installed maps and displays the first map that it can find that contains a camera from that site.

Trunk Control

Manual trunk control is rarely required, as the ZoneVu Site Controller products manage these seamlessly.

However should a trunk physically fail then the operator may need to manually select working trunks.



The NEXT button allows the operator to cycle round the available video trunks. Click the button to select the next trunk.

The FORCE button allows the operator to overwrite a trunk which is currently being used. Click the button to overwrite the trunk.

Dial-up Links

FUSION can also manage ISDN dial-up links to view images and control cameras and domes from other sites. Again FUSION manages this all seamlessly. When the operator clicks on a camera icon, which is a dial-up link to another site FUSION, makes all the necessary video paths throughout the system.

To kill the link manually click on the DIAL-UP button

Radio Links

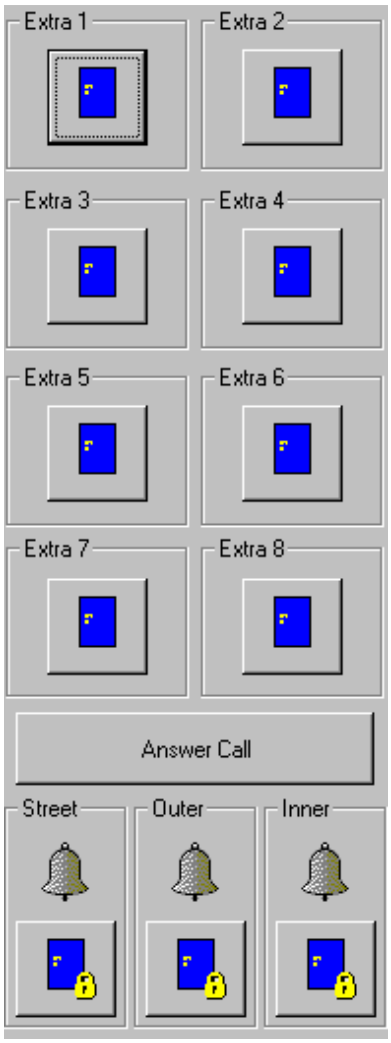
FUSION can also manage Radio links to view images and control cameras and domes from other sites. Again FUSION manages this all seamlessly. When the operator clicks on a camera icon, which has a radio link to another site FUSION, makes all the necessary video paths throughout the system.

To manually cycle cameras on a radio link use this button

Airlock Operation

Today's CCTV control rooms often incorporate an Airlock Door system to control who enters the control room. An Airlock comprises a corridor with a door at each end, one leading to the outside world, the other leading directly into the control room.

FUSION provides a control panel to manage the airlock facility efficiently. To select the AIRLOCK CONTROL panel click on the AIRLOCK button on the main FUSION control panel shown below.



When somebody wants to enter the control room they request entrance at the Outer Door. This generates an alarm at the workstation and displays the image viewing the door on the workstation ALARM monitor. Any associated intercom call can be answered by pressing the ANSWER CALL button.

The operator releases the door by clicking on the OUTER DOOR button. The lock icon shows whether the door is locked or unlocked and the door icon whether it is open or closed.

Once inside the Airlock the ALARM monitor updates with a view of the inside of the Airlock and the operator can decide whether to let the person into the control room by clicking on the INNER DOOR button releasing the Inner Door.

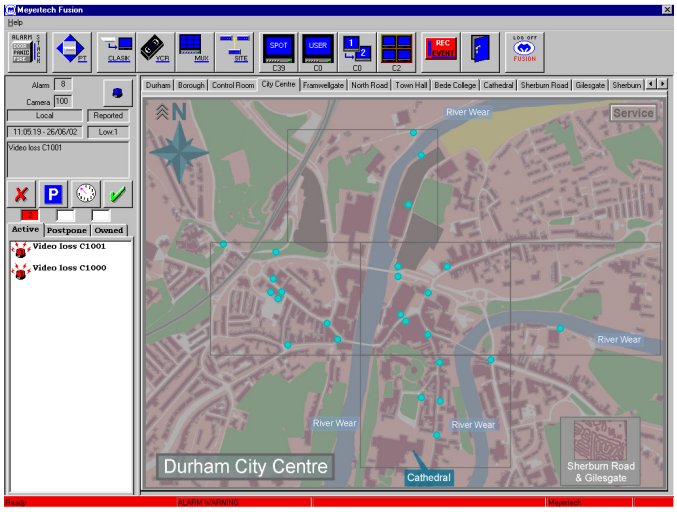
The Street button is used when the building has an additional non-airlock entry door (usually a street level entry into the building)

The eight extra buttons are all optional and fully configurable from Fusion Edit. They can be used to trigger extra relay commands from the GUI.

FUSION

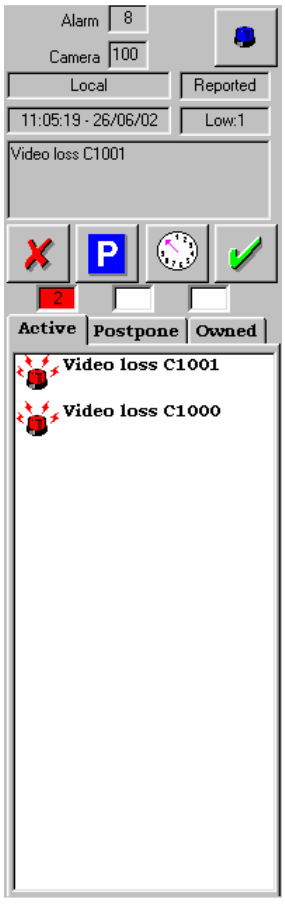
Alarm Management

FUSION provides comprehensive alarm management facilities when installed in conjunction with ZoneVu hardware. Alarms can be integrated into the system from many different sources including Cameras and Domes, Alarm panels and Video Loss detection. Below we can see an active alarm being managed by FUSION. At the bottom of the screen the red bar indicates to the operator an Alarm Warning message. The ALARM CONTROL panel to the left of the screen shows details of the alarm and incorporates controls to manage the alarm.



To access FUSION Alarm management facilities click or press the ALARM STACK button (shown below) on the main FUSION toolbar.

The ALARM CONTROL panel is shown below in more detail.



Looking at the ALARM PANEL in more detail and staring at the top of the panel. The first sub-panel displays the source of the alarm which, is classified as either a CAMERA, PANEL or PERIPHRAL device. Clicking on the button to the right of the status boxes takes you to the ADVANCED ALARM FUNCTIONS panel.

The next group of status boxes display the source of the alarm by site number and the time and date the alarm was reported. Also shown is the system priority level assigned to this alarm.

Below the status boxes are a group of buttons FUSION uses to manage the alarms. Each alarm can be ACCEPTED, POSTPONED, PARKED and CANCELLED. We shall come back to these in more detail.

Below the alarm management buttons are three alarm stacks for ACTIVE alarms, POSTPONED alarms and OWNED alarms. The small status boxes just above the ALARM STACK show how many alarms are currently in each stack.

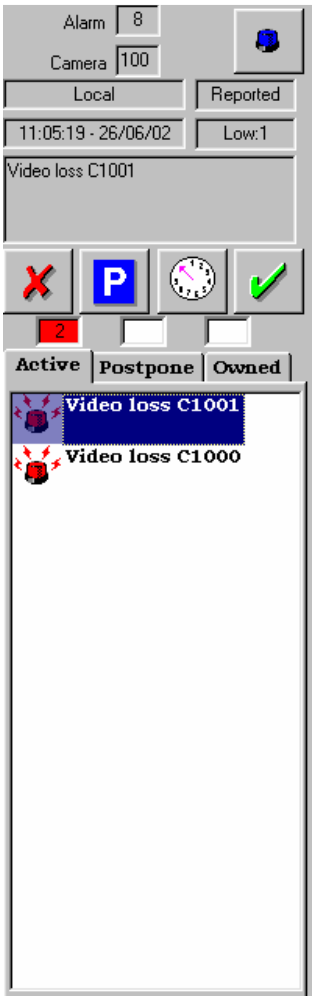
Accepting, Cancelling, Parking and Postponing Alarms

ALARM ACCEPT button

ALARM CANCEL button

ALARM PARK button

ALARM POSTPONE button



When alarms are shown in the ACTIVE alarm stack they appear on all FUSION workstations IE they are not currently owned. This is shown to the left.

To take ownership of an alarm click an alarm in the stack and select the ACCEPT button. Whilst alarms remain in the stack the red ALARM WARNING bar remains at the bottom of the screen on all workstations.

The alarm moves from the ACTIVE stack to the OWNED stack. Alarms will stay in the OWNED stack until removed by the operator.

To postpone an alarm select the alarm and click on the POSTPONE button. The alarm will be moved to the POSTPONED stack. Alarms which have been placed in the postponed stack will return to the ACTIVE stack automatically after a defined time period or by operator intervention through toggling the POSTPONE button which will switch the alarm between the ACTIVE and POSTPONED alarm stacks.

To PARK an alarm click on the alarm and select the PARK button. The alarm remains in the active alarm stack, but goes blue, it will remain in this parked state until the operator performs another operation on it.

To CLEAR an alarm click on the alarm and select the CANCEL button. If the alarm has gone inactive then this will clear the alarm, otherwise it will be re-reported.

Alarm Icons

Alarm icons can be added to any of the maps. The icons are associated with a specific alarm.

During normal operation the Alarm Icon remains hidden, only when the alarm becomes active is it displayed.

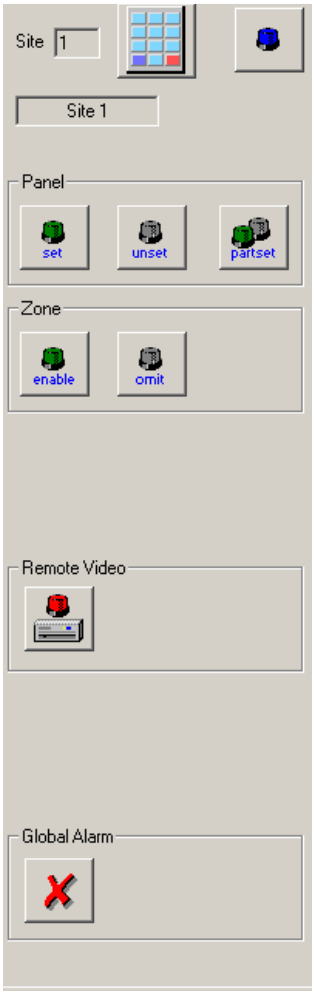
A choice of alarm icon is available and can be used to reflect different types of alarm sources.

On selecting the icon, the Alarm Control Panel will display the details of that alarm.

Non-specific alarm Barrier alarm Door alarm

Non-specific alarm Audible alarm PIR alarm

Advanced Alarm Functions



The ADVANCED FUNCTIONS ALARM panel provides FUSION with the ability to manage the operation of remote alarm panels.

The facilities provided to control remote alarm panels are alarm panel set, UNSET and PARTSET.

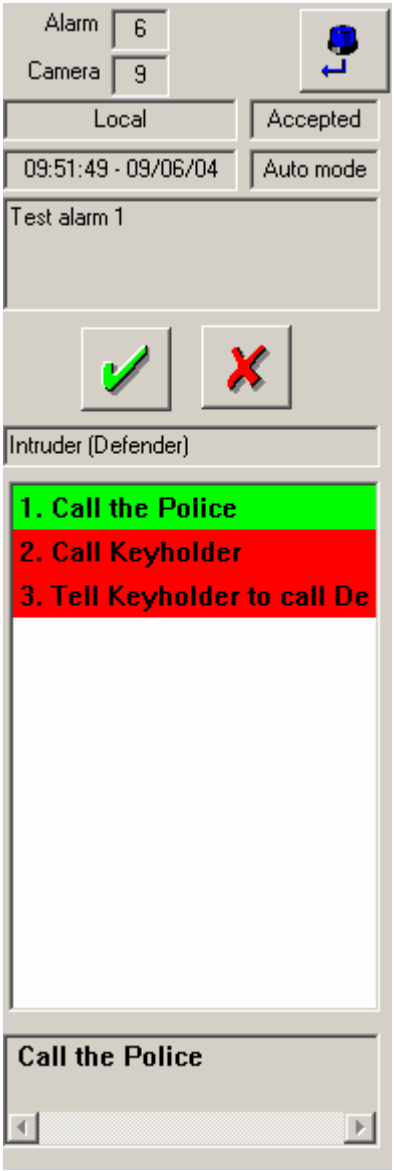
Alarm panel ZONES can also be ENABLED and OMITTED.

If the remote alarm panel is accessed by a ZoneVu ISDN gateway module the REMOTE VIDEO function allows FUSION to replay the last 10 seconds of pre-alarm/alarm video.

The GLOBAL ALARM button resets all alarms on a remote site panel.

Alarm Action Plans

If an alarm has an associated action plan and action plans have been enabled then the method of handling an alarm changes slightly. Note:- If the alarm has no associated alarm action plan then the methods of handling alarms stays as normal.



When attempting to accept an alarm that has an associated action plan, the user will be shown the action plan control panel. This panel displays each of the actions that must be performed before the specified alarm can be cleared.

Actions that have been completed are displayed in green and incomplete actions are displayed in red.

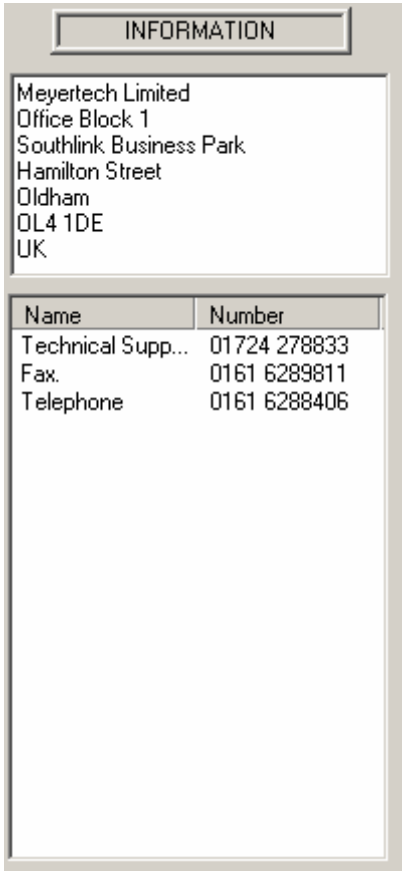
The user must highlight each of the individual actions and accept them one by one as they complete them. To accept an action, highlight the specific action and click the green tick. To clear an action, highlight the specific action and click the red cross. Only after all of the actions have been accepted can the alarm be cleared.

Should the user require to move an alarm from the owned stack back into the active stack, it is required that the user cancel all actions for the particular alarm before it can be moved back into the active stack.

Additional Icons

Information

Fusion supports the adding of information / help points onto maps to provide the operators with information related to the area that they are currently covering.



This information is shown in the Control Panel on selecting a help / information icon:

Telemetry Function Icons

Auxiliary relay functions on Meyertech's range of telemetry receivers are often used to control equipment not normally associated with a camera head.

Adding these icons to the maps, hides from the operator the specific details of an installation, whilst allowing him access to a feature.

The feature is enabled by selecting the icons (which icon is used is configurable within the FusionEdit application):

Function name	Enable feature (currently off)	Disable feature(currently on)
Barrier		
Video Conference		
Door		
Intercom		
Light		

FUSION

Operator Access

NOTE !

*When referring to **Operators**, in this section, we are referring to all classes of **Operators** including **Supervisors**, **Managers** and **Engineers**.*

Operators can be assigned a range of access rights and priorities within **Fusion**.

- **Camera control priority**
  A hierarchical system of camera control is implemented as part of the ZoneVu system. The priority that each operator/workstation has within this scheme can be controlled. Additionally the ability to control cameras can be enabled / disabled.

- **Ability to control multiplexers**
  The setting up and control of the system multiplexers is often critical to the operation of the control room, so the ability of operators to modify these can be controlled.

- **Application controls**
  The ability of an operator to exit Fusion, reboot the workstation, switch to Fusion Suite Manager and access the FusionEdit application can be controlled.

- **Functional resets**
  Certain functional sections of the ZoneVu system may sometimes want to be reset – following engineer activity – The ability to do this can be selectively applied to the operators.

- **Privacy zone override**
  Occasionally there may be operational reasons why a privacy zone may need to be temporarily disabled. The ability of an operator to do this can be controlled.

- **Door Control**
  The interface to a 3rd party access / door controller can be enabled or disabled by operator.

- **Configure keyboards**
  The Meyertech ZoneVu system allows for keyboards to be dynamically linked to a Fusion Workstation. This feature can be enabled for specific operators. Note – once configured the link will apply to all on operators on the workstation, the feature being enabled/disabled is the ability to change the existing link..

- **Ability to disable camera features**
  The Aux3 command on Meyertech's receivers is commonly used to control the power to peripheral equipment. As such the ability of operators to control this relay can be limited.

All of these can be configured via **FusionEdit** and are discussed in the **FusionEdit** manual.

Automated Functions

Fusion supports a number of automated functions. These are functions that the workstation will carry out as a background task without user intervention.

To enable these functions see the **FusionEdit User Manual.**

Auto control request

In this mode the workstation will automatically request control of any camera selected onto the operators (configured) spot monitor.

Requesting control of the camera, if successful, will prevent other users from controlling this camera.

Auto alarm function

In this mode the workstation will on receiving an alarm message, automatically switch the associated camera to the operators (configured) user monitor. See the **ZSC-1000 User Manual** for details on configuring alarms.

Servicing and Support

Servicing

Your FUSION PC Hardware requires no Planned Preventive Maintenance periods (PPM's), as it is mainly solid state in design. If your system incorporates a FUSION Touchsdcreen this may need recalibrating from tome to time. In this instance please refer to the OEM manuals.

Your FUSION PC Hardware contains no serviceable parts and should be returned to our Service Centre in Oldham for repair or replacement under warranty. Any repairs, attempted repairs or replaced components not carried out by the Meyertech Service Centre will void all Meyertech warranties and liabilities.

If your FUSION PC Hardware has to be returned to our Service Centre please follow the returns procedure below, otherwise delays may be incurred in returning or replacing it.

Returns Procedure

Prior to returning your Fusion Workstation, Monitor or Touchscreen

1. Contact our Oldham office by phone on +44 (0) 161 628 8406 or by email support@meyertech.co.uk for a Goods Return Number, GRN.
2. Our staff along with the reported problem will log the GRN.
3. Pack the Fusion Workstation, Monitor or Touchscreen into the original packing it was delivered in. Failure to do so means the equipment may incur further damage in transit, which Meyertech cannot be responsible for.
4. Organise delivery of the equipment back to our Oldham office (address is shown below). Use a reputable carrier, as again Meyertech cannot accept liability for loss or damage of goods in-transit.
5. On receiving the Fusion Workstation, Monitor or Touchscreen our staff will, after initial examination advise of the course of action we intend to take.
    a. Repair the Fusion Workstation, Monitor or Touchscreen under warranty. The Fusion Workstation, Monitor or Touchscreen will be repaired and returned to you free of charge.
    b. Replace the Fusion Workstation, Monitor or Touchscreen under warranty. The Fusion Workstation, Monitor or Touchscreen will be repaired and returned to you free of charge.
    c. Repair the Fusion Workstation, Monitor or Touchscreen at a quoted cost. An official purchase order to cover the cost and return of the product will be required prior to commencement of repair.
    d. Advise you that the Fusion Workstation, Monitor or Touchscreen is not repairable. You can then decide to have the product returned to you at the standard delivery charge or we can dispose of the product free of charge.

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Oldham
OL4 1DE

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Fax: +44 (0) 161 628 9811

FUSION

Support

Meyertech offer comprehensive levels of support during the product's warranty period. Our support team will be happy to help with any problem you may experience relating to the installation or operation of FUSION

1. Telephone support (+44(0)161 628 8406), which is available during normal office hours 9AM – 5PM Monday to Friday excluding Bank holidays. This support is free of charge.
2. Email support. Available 24 hours a day. Our normal response to emails is next working day. This support is free of charge. support@meyertech.co.uk
3. By Facsimile (+44(0)161 628 9811). Available 24 hours a day. Our normal response to facsimiles is next working day. This support is free of charge.
4. Site visits. Subject to availability, our engineers are available to attend site to assess and help with particular system problems firsthand. This service is chargeable. Please contact our Support department on +44(0)161 628 8406 for further details and availability.

Meyertech offer Extended Support Contracts on all their software products. Please contact our Sales department on 0161 628 8406 to discuss your requirements or visit our website www.meyertech.co.uk

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Meyertech Limited is a member of the CCTV User Group.

Warranty

Please refer to Meyertech Limited 'Terms & Conditions of Sale of Goods & Services' for interpretation.

1. If the Buyer establishes to the Seller's reasonable satisfaction that there is a defect in the materials or workmanship of the Goods manufactured, then the Seller shall at its option, at its sole discretion and within a reasonable time,
    a. arrange for the repair or making good such defect or failure in such Goods free of charge to the Buyer (including all costs of transportation of any Goods or materials to and from the Buyer for that purpose),
    b. replace such Goods with Goods which are in all respects in accordance with the Contract, or

    subject, in every case, to the remaining provisions of this Condition 1 provided that the liability of the Seller under this Condition 1 shall in no event exceed the purchase price of such Goods and performance of anyone of the above options shall constitute an entire discharge of the Seller's liability under this warranty.

2. Condition 1 shall not apply unless the Buyer:

    a. notifies the Seller in writing of the alleged defect within 12 (twelve) months from delivery or such other period or periods as may be agreed in writing between the Seller and the Buyer, and
    b. allows the Seller a reasonable opportunity to inspect the relevant Goods.

3. For the avoidance of doubt, the Seller shall be under no liability under the warranty in Condition 1 above:
    a. where such defects arise from any drawing, design or specification supplied by the Buyer; or
    b. where such defects arise from fair wear and tear, wilful damage, or negligence of a party other than the Seller (or its employees or authorised personnel), abnormal working conditions, failure to follow the Seller's instructions (whether oral or in writing), misuse or alteration or repair of the Goods without the Seller's approval; or
    c. where such defects arise in parts, materials or equipment which have not been manufactured or designed by the Seller but have been purchased at the Buyer's request by the Seller from the Buyer's designer and manufacturer or from some other third party (the **"Third Party Supplier").**
    d. if the total price of the Goods has not been paid by the due date for payment
    e. in respect of any type of defect, damage or wear specifically excluded by the Seller by notice in writing: or
    f. if the Buyer makes any further use of the Goods after giving notice in accordance with Clause 1

4. Any repaired or replaced Goods shall be redelivered to the Buyer free of charge to the original point of delivery but otherwise in accordance with and subject to these Conditions.

5. Alternatively to Condition 1 the Seller shall be entitled at its absolute discretion on return of the defective Goods to the Seller (at the Seller's request) to refund the price of the defective Goods in the event that such price shall already have been paid by the Buyer to the Seller, or, if such price has not been paid, to relieve the Buyer of all obligation to pay the sum by the issue of a credit note in favour of the Buyer in the amount of such price.

6. In respect of all Goods supplied to the Seller by a Third Party Supplier the Seller will on request pass on to the Buyer (in so far as reasonably possible) the benefit of any warranty given to the Seller by such Third Party Supplier and will (on request) supply to the Buyer details of the terms and conditions of such warranty and copies of any relevant product information sheets, technical data sheets or product leaflets issued by such Third Party Supplier and the Buyer shall be solely responsible to the entire exclusion of the Seller for complying with the same.

7. For the purposes of Condition 1 references to Goods shall be deemed to exclude software.

8. The Buyer acknowledges that software in general is not error-free and agrees that the existence of such errors in the Software Programs shall not constitute a breach of this Contract.

9. In the event that the Buyer discovers a material error which results in the Programmed Products not performing substantially in accordance with the Functional Specification, or the Licensed Programs not performing substantially in accordance with the relevant Program Documentation and notifies the Seller of the error within 90 days from the date of the Seller making available the respective software to the Buyer (the **`warranty period"**) the Seller shall at its sole option either refund the price which the Buyer has paid to the Seller (or if such price has not been paid, relieve the Buyer of all obligations to pay the sum) in respect of the respective software or use all reasonable endeavours to correct by patch or new release (at its option) that part of the software which does not so comply provided that such non-compliance has not been caused by any modification, variation or addition to the software not performed by the Seller or caused by its incorrect use, abuse or corruption of the software by use of the software with other software or on equipment with which it is incompatible,

10. To the extent permitted by English law, the Seller disclaims all other warranties, with respect to the software which it provides pursuant to the Contract, either express or implied, including but not limited to any implied warranties of satisfactory quality or fitness for any particular purpose.

11. The Buyer is solely responsible for various scanning the software that it receives from the Seller pursuant to the Contract.

12. The Seller warrants that it will use reasonable skill and care in providing the Services to the buyer

Minimum System Requirements

The minimum recommended PC hardware to run FUSION is dictated by the OS (Operating System) you are running I.E. that recommended by Microsoft for running a particular OS. FUSION also requires:

1. One free Serial RS232 port
2. SVGA 1024 x 768 colour monitor

Optionally:

1. Sound card and speakers for audio alarms
2. Video capture device with composite video input and WDM or Video for Window device drivers for inset video
3. Ethernet network adapter for Ethernet communications instead of RS232

Operating systems FUSION will run on are:

1. Microsoft Windows 2000
2. Microsoft Windows XP (default new installation unless specified)

Maintenance

FUSION is designed to operate without any regular maintenance. However, the following procedures are recommended to ensure optimal performance and to avoid any potential data loss due to computer problems.

After Installation

1. Ensure the directory **meyertech\fusion\maps** is backed up.
2. Ensure directory **meyertech\fusion\equipment** is backed up.

After Using FUSION Edit to Configure the System

1. Ensure the directory **meyertech\fusion\maps** is backed up.
2. Ensure directory **meyertech\fusion\equipment** is backed up.

Backups

Always ensure FUSION backups are stored separately from the PC, EG CD, DVD, Iomega Zip drive ETC. This will protect the data from computer errors and/or data corruption.

Appendix A

Icon Guide

ICON	DESCRIPTION	ICON	DESCRIPTION
	Fixed camera icon. This camera cannot be controlled. Blue background status indicates it is not currently displayed on your SPOT monitor, USER monitor or RELAY monitor.		Fixed camera icon. This camera cannot be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor.
	PTZ camera icon. This camera can be controlled. Blue background status indicates it is not currently displayed on your SPOT monitor, USER monitor or RELAY monitor.		PTZ camera icon. This camera can be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor.
	Fixed camera icon. This camera cannot be controlled. Blue background status indicates it is not currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Red camera status indicates the camera is in Alarm.		PTZ camera icon. This camera can be controlled. Blue background status indicates it is not currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Red camera status indicates the camera is in Alarm.
	PTZ camera icon. This camera can be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Yellow PTZ symbol indicates you currently have control of the camera.		PTZ camera icon. This camera can be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Dark green PTZ symbol indicates you do not currently have control of the camera.
	Fixed camera icon. This camera cannot be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Red camera status indicates the camera is in Alarm.		PTZ camera icon. This camera can be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Red camera status indicates the camera is in Alarm.
	PTZ camera icon. This camera can be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Yellow PTZ symbol indicates you currently have control of the camera. Red camera status indicates the camera is in Alarm.		PTZ camera icon. This camera can be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Dark green PTZ symbol indicates you do not currently have control of the camera. Red camera status indicates the camera is in Alarm.
	Dome camera icon. This dome can be controlled. Blue background status indicates it is not currently displayed on your SPOT monitor, USER monitor or RELAY monitor.		Dome camera icon. This dome can be controlled. Blue background status indicates it is not currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Red camera status indicates the dome is in Alarm.
	Dome camera icon. This dome can be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor.		Dome camera icon. This dome can be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Red camera status indicates the dome is in Alarm.

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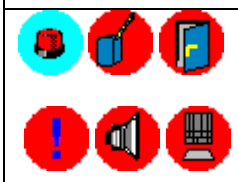
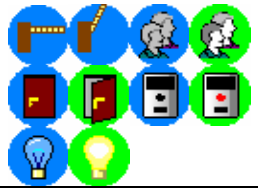
ICON	DESCRIPTION	ICON	DESCRIPTION
	Dome camera icon. This dome can be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Yellow PTZ symbol indicates you currently have control of the dome.		Dome camera icon. This dome can be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Dark green PTZ symbol indicates you do not currently have control of the dome.
	Dome camera icon. This dome can be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Yellow PTZ symbol indicates you currently have control of the camera. Red camera status indicates the dome is in Alarm.		Dome camera icon. This dome can be controlled. Green background status indicates it is currently displayed on your SPOT monitor, USER monitor or RELAY monitor. Dark green PTZ symbol indicates you do not currently have control of the camera. Red camera status indicates the dome is in Alarm.
	Map navigation arrow. This arrow indicates there is a map above the current map you are viewing. Click the arrow to go to the new map.		Map navigation arrow. This arrow indicates there is a map below the current map you are viewing. Click the arrow to go to the new map.
	Map navigation arrow. This arrow indicates there is a map to the left of the current map you are viewing. Click the arrow to go to the new map.		Map navigation arrow. This arrow indicates there is a map to the right of the current map you are viewing. Click the arrow to go to the new map.
	Map navigation symbol. This symbol indicates you can ‘zoom in’ to a new map level E.G. inside a building. Click the symbol to go to the new map level.		Map navigation symbol. This symbol indicates you have ‘zoomed in’ to a new map level E.G. inside a building. Click the symbol to return to the previous map level.
	Map navigation arrow. This ‘chevron’ arrow appears on all maps except the ‘top’ map. This arrow indicates you have ‘drilled down’ to a new map level E.G. inside a building. Click the arrow to return to the previous map level.		Camera / Dome icon. Grey background status indicates the preset view is not currently displayed on your SPOT monitor, USER monitor or RELAY monitor.
	Camera / Dome icon. Green background status indicates the preset view is currently displayed on your SPOT monitor, USER monitor or RELAY monitor.		Camera / Dome icon. Yellow background status indicates the preset is a special preset known as the camera or domes ‘HOME’ position and is not currently displayed on your SPOT monitor, USER monitor or RELAY monitor.
	Information Buttons		Zonal switch.
	Alarm icons		Function icons

FUSION

Appendix B

FUSION Start-up Procedure

Normally when your FUSION workstation is powered-up, after being shut down in the recommended way, after loading Windows it will automatically boot straight into the FUSION application. If it fails to do this you can run the FUSION application by double clicking the FUSION icon from the desktop.

FUSION Shutdown Procedure

Your FUSION workstation must always be shutdown by following the recommended procedure for the Widows OS you are running. Never switch-off the PC unless:

1. Windows has advised you to do so
2. The PC has locked-up and there is no reset switch.

To close the FUSION application and shut-down the PC:

1. Quit FUSION. This is only possible from a supervisor/manager level. When logged-off select your name and press the EXIT FUSION button. Enter your Password or PIN and press ENTER.
2. Shut down Windows as recommend by the OS you are running.

FUSION Recovery Procedure

If FUSION fails to respond to user input the program or operating system might have crashed. The problem may manifest itself in a number of ways EG a Windows error screen may appear advising the application is about to close, the appearance of the egg-timer icon indicating the system is executing a command; but never completes it resulting in a 'locked-up' appearance; ETC

Fault Logging and Reporting

In order for faults to be fixed in future releases of Windows and FUSION it is important that all faults are logged and reported to Meyertech.

When you experience a fault please note down as much information as you can about the status of the system when the fault occurred IE:

- What operation, if any was being performed at the time the fault occurred?
- If there are any error messages on the screen please carefully note them down before clearing them.
- How did you rectify the fault EG reset the PC

General Recovery From a Fault

If a minor fault occurs recovery can normally be achieved by simply logging-off FUSION and then logging back on. Follow the procedure below:

3. Select LOG-OFF FUSION from the toolbar.
4. Select your User Name from the User Log-on list shown on the left. If your name is not currently visible scroll up or down the list until you find it using the slider bar on the right of the list.
5. Now press the Log-on button.
6. The on-screen keyboard will then pop-up. Enter your Password or PIN and press ENTER.
7. If the problem persists you may have to restart Windows by quitting FUSION and restarting Windows.
8. Quitting FUSION is only possible from a supervisor/manager level. When logged-off select your name and press the EXIT FUSION button. Enter your Password or PIN and press ENTER.
9. Next restart Windows. The workstation will automatically 'Boot-up' into the FUSION application.

Recovery From a Major Fault

Recovery from a more serious fault may mean you cannot log-off FUSION. In this case follow the procedure below:

1. Locate the PC keyboard and press Ctrl, Alt, Delete simultaneously.
2. A pop-up window will appear giving you the option to end applications, which are currently running.
3. Select 'Meyertech Fusion' followed by 'End Task'
4. Restart FUSION by double clicking the FUSION icon on the desktop.

Alternatively if Ctrl, Alt, Delete does not work. Locate the PC and press the reset button. If the PC does not have a reset button power-down the PC, wait five minutes and then power-up the PC. The workstation will automatically 'Boot-up' into the FUSION application.

If all of the above fail it is possible data corruption has occurred. You may have to:

1. Re-install FUSION
2. Restore the FUSION data files you have previously backed up.

Please contact Meyertech Support

Using a ZoneVu Keyboard as Back-up for CCTV Control

If the FUSION workstation is off-line then it is possible to select and control system equipment (EG cameras) using the ZoneVu (dependant on type of keyboard) keyboard. To do this the keyboard has to be taken out of PCI Mode by logging-off it and then placed in Site Mode. Please refer to your particular keyboard manual for further information on how to select Site Mode operation.

Appendix C

FUSION Installation

Insert the FUSION CD into the workstation's CD drive and the installation process should start automatically. If this doesn't happen, manually execute the ***setup.exe*** program in the CD's root folder.

During installation you will be asked to enter the licence number provided in the Fusion Software Licence Agreement. Note that this allows the installation to proceed, but does not licence the workstation to run FUSION. This is accomplished as described below.

FUSION Licensing

FUSION versions 1.25.0.0 and later require a licence file to be installed in order to operate correctly. The licence provides FUSION with the workstation number it requires in order to participate in a FUSION network. The licence is not tied to the hardware of a particular workstation, and can simply be re-installed if the workstation needs to be replaced.

The licence information is displayed when FUSION starts-up, and includes the site name, workstation number, workstation serial number and Meyertech job number. It also shows if any special features have been enabled, such as the Incident interface.

Licence Installation

Note that FUSION must already be installed onto the workstation before the licence can be installed.

One or more licences are normally supplied on a CD. Each has its own installation program that must be run on the relevant FUSION workstation in order to install its licence. For each site, there is a folder on the CD with the name of the site. Within these folders there are one or more sub-folders holding the installation programs that install the licences onto the workstations for that site.

An example folder structure is shown below.

```
ControlRoom
  ├ WS01 Install
  ├ WS02 Install
  └ WS03 Install
Gatehouse
  └ WS01 Install
```

In this example there are four licences, three for workstations in the control room, and one for the workstation in the gatehouse.

For each workstation, insert the CD containing the licences, browse to the relevant site and workstation installation folder and execute its setup.exe program. If the wrong licence is installed by mistake, the correct licence file can be copied from the CD to replace the one in the FUSION licence folder. Using our example above, the licence file for Control Room Workstation 2 (FusionWS02Licence.dat) would appear on the CD at the following location.

```
ControlRoom
  ├ WS01 Install
  ├ WS02 Install
  │   └ Meyertech
  │       └ Fusion
  │           └ Licence
  │               └ FusionW02Licence.dat
  └ WS03 Install
Gatehouse
  └ WS01 Install
```

This can be recognised by FUSION provided it is copied into the following folder on the workstation's hard drive.

```
└ Meyertech
   └ Fusion
      └ Licence
```

Note that if the licence file is missing or corrupt FUSION reports that it is unlicensed and defaults to using workstation number 1. This can cause incorrect operation if there is already a Workstation 1 on the network.